

WHAT IS CLAIMED IS:

1 1. (Original): An optical head for focusing laser light on an optical
2 information medium and receiving reflected light from the optical information medium
3 comprising:

4 a first laser emitting component disposed on a first substrate and operable to
5 produce laser light at a first wavelength; and

6 a second laser emitting component disposed on a second substrate and
7 operable to produce laser light at a second wavelength and for detecting laser light, the
8 second substrate separate from the first substrate, the second laser emitting component
9 comprising:

10 a first light receiving element disposed the second substrate and
11 arranged to receive reflected light of the laser light of the first wavelength; and

12 a second light receiving element disposed on the second substrate
13 arranged to receive reflected light of the laser light of the second wavelength.

1 2. (Original): The optical head of claim 1 wherein the first wavelength is
2 different from the second wavelength.

1 3. (Original): The optical head of claim 1 wherein the third wavelength is
2 about 410 nanometers.

1 4. (Original): The optical head of claim 3 wherein the first wavelength is
2 about 650 nanometers and the second wavelength is about 780 nanometers.

1 5. (Original): The optical head of claim 1 wherein the first laser emitting
2 component is further configured to produce laser light of a third wavelength different from
3 the first wavelength and different from the second wavelength, and wherein the second laser
4 emitting component further comprises a third receiving element disposed on the second
5 substrate to receive reflected light of the laser light of the third wavelength.

1 6. (Original): The optical head of claim 1 wherein the second laser
2 emitting component is further configured to produce laser light of a third wavelength
3 different from the first wavelength and different from the second wavelength, and wherein
4 the second laser emitting component further comprises a third receiving element disposed on
5 the second substrate to receive reflected light of the laser light of the third wavelength.

1 7. (Original): An optical head for directing laser light to an optical
2 information medium and for receiving reflected laser light from the optical information
3 medium, comprising:
4 a laser chip for emitting a first beam of light at a first wavelength, the laser
5 diode disposed on a first substrate;
6 a laser module comprising a second substrate separate from the first substrate,
7 the laser module for emitting at least second beam of light at a second wavelength, the laser
8 module further having a plurality of receiving elements disposed on the second substrate;
9 a beam splitter to guide the first and the second beams to the optical
10 information medium; and
11 a focus lens to focus the first and second beams onto the optical information
12 medium, thereby producing reflected light from the optical information medium,
13 the beam splitter guiding the reflected light to the receiving elements of the
14 laser module.

1 8. (Original): The optical head of claim 7 wherein the laser module is
2 configured to selectively produce the second beam light at the second wavelength and at a
3 third wavelength, wherein the beam splitter is disposed at a location such that an optical axis
4 of the first beam of light is substantially aligned with an optical axis of the second beam of
5 light.

1 9. (Original): The optical head of claim 8 wherein the laser module
2 comprises a first laser chip and a second laser chip disposed on the second substrate.

1 10. (Original): The optical head of claim 9 wherein the laser chip is
2 configured to produce the first beam of light at only the first wavelength.

1 11. (Original): The optical head of claim 7 wherein the laser chip is
2 configured to selectively produce the first beam of light at the first wavelength and at a third
3 wavelength, wherein the beam splitter is disposed such that an optical axis of the first beam
4 of light is substantially in alignment with an optical axis of the second beam of light.

1 12. (Original): The optical head of claim 7 further comprising a beam
2 shaping prism disposed between the laser diode and the beam splitter.